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| Substitute for form 1449A/B/PTO  |                        | <b>Complete if Known</b> |                  |
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br><i>(Use as many sheets as necessary)</i> |                        | Application Number       | 10/685,479       |
|  |                        | Filing Date              | October 16, 2003 |
|  |                        | First Named Inventor     | Sean Colbath     |
|  |                        | Art Unit                 | 2161             |
|  |                        | Examiner Name            | M.M. Pyo         |
| Sheet 1 of 2   | Attorney Docket Number | BBNT-P01-199             |                  |

| U.S. PATENT DOCUMENTS |                       |   |                                |  |   |
|-----------------------|-----------------------|---|--------------------------------|--|---|
| Examiner Initials*    | Cite No. <sup>1</sup> | Document Number<br>Number-Kind Code <sup>2</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
| MP                    | AA*                   | US-20010026377-A1   | 10-04-2001                     | Ikegami  |   |
| MP                    | AB*                   | US-20010051984-A1   | 05-20-2003                     | FUKASAWA   |   |
| MP                    | AC*                   | US-20020010916-A1   | 12-03-2002                     | Thong et al.                                       |   |
| MP                    | AD*                   | US-20020059204-A1   | 05-16-2002                     | Harris   |   |
| MP                    | AE*                   | US-20020184373-A1   | 12-05-2002                     | Maes   |   |
| MP                    | AF*                   | US-20030051214  | 03-13-2003                     | Graham et al                                       |   |
| MP                    | AG*                   | US-20030093580-A1   | 05-15-2003                     | McGee et al.                                       |   |
| MP                    | AH*                   | US-20030167163-A1   | 09-04-2003                     | Glover et al.                                      |   |
| MP                    | AI*                   | US-20040073444-A1   | 04-15-2004                     | Peh et al.   |   |
| MP                    | AJ*                   | US-20050060162-A1   | 03-17-2005                     | Mohit et al.                                       |   |
| MP                    | AK*                   | US-4,879,648  | 11-07-1989                     | Cochran et al.                                     |   |
| MP                    | AL*                   | US-4,908,866  | 03-13-1990                     | Goldwasser et al                                   |   |
| MP                    | AM*                   | US-5,317,732  | 05-31-1994                     | Gerlach, Jr. et al.                                |   |
| MP                    | AN*                   | US-5,404,295  | 04-04-1995                     | Katz et al   |   |
| MP                    | AO*                   | US-5,544,257  | 08-06-1996                     | Bellegarda et al                                   |   |
| MP                    | AP*                   | US-5,572,728  | 11-05-1996                     | Tada et al   |   |
| MP                    | AQ*                   | US-5,684,924  | 11-04-1997                     | Stanley et al                                      |   |
| MP                    | AR*                   | US-5,715,367  | 02-03-1998                     | Gillick et al                                      |   |
| MP                    | AS*                   | US-5,752,021  | 05-12-1998                     | Nakatsuyama et al.                                 |   |
| MP                    | AT*                   | US-5,757,960  | 05-26-1998                     | Murdock et al                                      |   |
| MP                    | AU*                   | US-5,768,607  | 06-16-1998                     | Drewns et al                                       |   |
| MP                    | AV*                   | US-5,777,614  | 07-07-1998                     | Ando et al   |   |
| MP                    | AW*                   | US-5,787,198  | 07-28-1998                     | Agazzi et al                                       |   |
| MP                    | AX*                   | US-5,835,667  | 11-10-1998                     | Wactlar et al                                      |   |
| MP                    | AY*                   | US-5,862,259  | 01-19-1999                     | Bokser et al                                       |   |
| MP                    | AZ*                   | US-5,875,108  | 02-23-1999                     | Hoffberg et al                                     |   |
| MP                    | AA1*                  | US-5,970,473  | 10-19-1999                     | Gerszberg et al                                    |   |
| MP                    | AB1*                  | US-6,006,221  | 12-21-1999                     | Liddy et al.                                       |   |
| MP                    | AC1*                  | US-6,029,124  | 02-22-2000                     | Gillick et al                                      |   |
| MP                    | AD1*                  | US-6,029,195  | 02-22-2000                     | Herz, Frederick S.M.                               |   |
| MP                    | AE1*                  | US-6,052,657  | 04-18-2000                     | Yamron et al                                       |   |
| MP                    | AF1*                  | US-6,064,963  | 05-16-2000                     | Gainsboro, Jay L.                                  |   |
| MP                    | AG1*                  | US-6,088,669  | 07-11-2000                     | Mayes  |   |
| MP                    | AH1*                  | US-6,112,172  | 08-29-2000                     | True et al   |   |
| MP                    | AI1*                  | US-6,151,598  | 11-21-2000                     | Shaw et al.  |   |
| MP                    | AJ1*                  | US-6,169,789  | 01-02-2001                     | Rao et al  |   |
| MP                    | AK1*                  | US-6,219,640  | 04-17-2001                     | Basu et al   |   |
| MP                    | AL1*                  | US-6,332,139  | 12-18-2001                     | Kaneko et al                                       |   |
| MP                    | AM1*                  | US-6,373,985  | 04-16-2002                     | Hu et al   |   |
| MP                    | AN1*                  | US-6,381,640-B1   | 04-30-2002                     | Powers et al                                       |   |
| MP                    | AO1*                  | US-6,437,818-B1   | 08-20-2002                     | Lauwers et al                                      |   |
| MP                    | AP1*                  | US-6,480,826  | 11-12-2002                     | Petrushin, Valery A.                               |   |
| MP                    | AQ1*                  | US-6,602,300-A1   | 08-05-2003                     | Ushioda et al.                                     |   |
| MP                    | AR1*                  | US-6,604,110  | 08-05-2003                     | Savage et al.                                      |   |
| MP                    | AS1*                  | US-6,647,383  | 11-11-2003                     | August et al                                       |   |

|                    |              |                 |            |
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| Examiner Signature | /Monica Pyo/ | Date Considered | 01/22/2007 |
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| Sheet  | 2 | of | 2 | Attorney Docket Number   | BBNT-P01-199     |

|    |      |                 |            |                   |  |
|----|------|-----------------|------------|-------------------|--|
| MP | AT1* | US-6,654,735    | 11-25-2003 | Eichstaedt et al  |  |
| MP | AU1* | US-6,847,961    | 01-25-2005 | Silverbrook et al |  |
| MP | AV1* | US-6,922,691-A1 | 07-26-2005 | Flank             |  |
| MP | AW1  | US-6,961,954    | 11-01-2005 | Maybury et al.    |  |
| MP | AX1* | US-6,973,428-A1 | 12-06-2005 | Boguraev et al.   |  |
| MP | AY1* | US-6,978,277-A1 | 12-20-2005 | Reed et al.       |  |

| FOREIGN PATENT DOCUMENTS |                       |   |  |                                |   |   |                |
|--------------------------|-----------------------|---|--|--------------------------------|---|---|----------------|
| Examiner Initials*       | Cite No. <sup>1</sup> | Foreign Patent Document   |  | Publication Date<br>MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T <sup>2</sup> |
|                          |                       | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) |  |                                |   |   |                |
| MP                       | BA                    | EP-0664636  |  | 07-26-1995                     | IBM   |   |                |
| MP                       | BB                    | EP-0715298  |  | 06-09-2000                     | IBM   |   |                |
| MP                       | BC                    | EP-0935378  |  | 08-11-1999                     | IBM   |   |                |
| MP                       | BD                    | EP-1079313  |  | 02-28-2001                     | Digitake Software Systems Limited               |   |                |
|                          | BE                    | EP-1103952  |  | 05-30-2001                     | Matsushita Electric Industrial                  |   |                |
| MP                       | BF                    | EP-1176493  |  | 01-30-2002                     | Pathuel, Jan                                    |   |                |
| MP                       | BG                    | WO-99/17235   |  | 04-08-1999                     | AT&T  |   |                |
| MP                       | BH                    | WO-00/59223   |  | 10-05-2000                     | Tivo, Inc.                                      |   |                |
| MP                       | BI                    | WO-02/29612   |  | 04-11-2002                     | Intel Corporation                               |   |                |
| MP                       | BJ                    | WO-02/29614   |  | 04-11-2002                     | Intel Corporation                               |   |                |

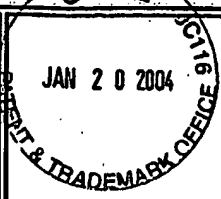
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| NON PATENT LITERATURE DOCUMENTS |                          |   |                |
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| Examiner<br>Initials            | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
|                                 |                          |   |                |

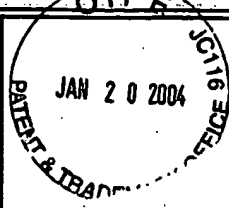
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| Examiner<br>Signature | /Monica Pyo/ | Date<br>Considered | 01/22/2007 |
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| <b>INFORMATION<br/>DISCLOSURE<br/>CITATION</b><br>PTO-1449             |   |  |         | ATTORNEY'S DKT No.<br>02-4033              |          | APPLICATION No.<br>10/685,479 |  |
|  |   | APPLICANT(s)<br>Sean Colbath et al.   |         | FILING DATE<br>October 16, 2003            |          | GROUP<br>Unassigned           |  |
| U.S. PATENT DOCUMENTS  |   |   |         |  |          |                               |  |
| EXAMINER'S<br>INITIALS   | PATENT NO.  | DATE  | NAME    | CLASS                                      | SUBCLASS | FILING<br>DATE                |  |
|  |   |   |         |  |          |                               |  |
| FOREIGN PATENT DOCUMENTS   |   |   |         |  |          |                               |  |
| EXAMINER'S<br>INITIALS   | PATENT NO.  | DATE  | COUNTRY | CLASS                                      | SUBCLASS | Translation<br>Yes    No      |  |
|  |   |   |         |  |          |                               |  |
| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) |   |   |         |  |          |                               |  |
| MP   | Amit Srivastava et al.: "Sentence Boundary Detection in Arabic Speech," <u>8<sup>th</sup> European Conference on Speech Communication and Technology</u> , September 1-4, 2003 in Geneva, Switzerland; 4 pages.   |   |         |  |          |                               |  |
| MP   | Sreenivasa Sista et al.: "Unsupervised Topic Discovery Applied To Segmentation Of News Transcriptions," <u>8<sup>th</sup> European Conference on Speech Communication and Technology</u> , September 1-4, 2003 in Geneva, Switzerland; 4 pages.                             |   |         |  |          |                               |  |
| MP   | Daben Liu et al.: "Online Speaker Clustering," <u>ICASSP 2003</u> , Vol. I, pages 572-575, 2003 Hong Kong.  |   |         |  |          |                               |  |
| MP   | J. Billa et al.: "Audio Indexing Of Arabic Broadcast News," <u>ICASSP 2002</u> , Orlando, FL; May 13-17, 2002; 4 pages.   |   |         |  |          |                               |  |
| MP   | Scott Shepard et al.: "Oasis Translator's Aide," <u>Human Language Technology Conference</u> ; San Diego, California; 2002; 2 pages.  |   |         |  |          |                               |  |
| MP   | Scott Shepard et al.: "Newsroom OnTAP - Real-time alerting from streaming audio," December-January 2001 HLT Paper; 2 pages.   |   |         |  |          |                               |  |
| MP   | Heidi Christensen et al.: "Punctuation Annotation using Statistical Prosody Models," <u>The Proceedings of Eurospeech</u> , Denmark, 2001; 6 pages.   |   |         |  |          |                               |  |
| MP   | Ji-Hwan Kim et al.: "The Use Of Prosody In A Combined System For Punctuation Generation And Speech Recognition," <u>The Proceedings of Eurospeech</u> , Denmark, 2001; 4 pages.   |   |         |  |          |                               |  |
| MP   | Jing Huang et al.: "Maximum Entropy Model For Punctuation Annotation From Speech," <u>The Proceedings of Eurospeech</u> , Denmark, 2001; pages 917-920.   |   |         |  |          |                               |  |
| MP   | Yoshihiko Gotoh et al.: "Sentence Boundary Detection in Broadcast Speech Transcripts," <u>Proceedings of the International Speech Communication Association Workshop: Automatic Speech Recognition: Challenges for the New Millennium</u> , Paris, September 2000; 8 pages. |   |         |  |          |                               |  |
| MP   | John Makhoul et al.: "Speech and Language Technologies for Audio Indexing and Retrieval," <u>Proceedings of the IEEE</u> , Vol. 88, No. 8, August 2000; pages 1338-1353.  |   |         |  |          |                               |  |
| MP   | Francis Kubala et al.: "Integrated Technologies For Indexing Spoken Language," <u>Communications of the ACM</u> , Vol. 43, No. 2, February 2000; pages 48-56.   |   |         |  |          |                               |  |
| EXAMINER                    /Monica Pyo/                               |   |   |         | DATE CONSIDERED    07/18/2006 & 01/29/2007 |          |                               |  |

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| <b>INFORMATION<br/>DISCLOSURE<br/>CITATION</b><br>PTO-1449 |  |  |  | ATTORNEY'S DKT NO.<br>02-4033       | APPLICATION NO.<br>10/685,479 |
|  |  |   |  | APPLICANT(S)<br>Sean Colbath et al. |                               |
|  |  | FILING DATE<br>October 16, 2003   |  | GROUP<br>Unassigned                 |                               |

| U.S. PATENT DOCUMENTS  |            |      |      |       |          |                |
|------------------------|------------|------|------|-------|----------|----------------|
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|                        |            |      |      |       |          |                |

| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) |   |
|--|---|
| MP   | Sean Colbath et al.: "Spoken Documents: Creating Searchable Archives from Continuous Audio," <u>Proceedings of the 33<sup>rd</sup> Hawaii International Conference on System Sciences-2000</u> ; pages 1-9.   |
| MP   | Francis Kubala et al.: "Situation Awareness Contexts for Smart Environments," <u>Inter-Agency Workshop on Research Issues for Smart Environments</u> ; Atlanta, GA; 2000; 3 pages.  |
| MP   | Daben Liu et al.: "Fast Speaker Change Detection For Broadcast News Transcription And Indexing," <u>The Proceedings of Eurospeech 1999</u> ; Budapest, Hungary; 4 pages.  |
| MP   | Daniel M. Bikel et al.: "An Algorithm that Learns What's in a Name," <u>Machine Learning</u> , 1999; pages 1-20.  |
| MP   | Richard Schwartz et al.: "Accurate Near-Real-Time Recognition of Broadcast News using Multiple-Pass Search Techniques," <u>1999 Workshop on Automatic Speech Recognition and Understanding</u> , December 12-15, 1999; Keystone, Colorado; 6 pages. |
| MP   | Francis Kubala et al.: "Smart Information Spaces: Managing Personal and Collaborative Histories," <u>Proceedings of the 1998 DARPA/NIST Smart Spaces Workshop</u> , July 30-31, 1998; 6 pages.  |
| MP   | Daben Liu et al.: "Improvements in Spontaneous Speech Recognition," <u>Proceedings of the DARPA Broadcast News Transcription and Understanding Workshop</u> ; February 8-11, 1998 in Lansdowne, Virginia; 5 pages.                                  |
| MP   | Francis Kubala et al.: "The 1997 BBN Byblos System Applied To Broadcast News Transcription," Cambridge, Massachusetts; 1997; 6 pages.   |
| MP   | Hubert Jin et al.: "Automatic Speaker Clustering," <u>ICFEM</u> , Chantilly, Virginia; February 1997; 4 pages.  |
| MP   | Sean Colbath et al.: "OnTAP: Mixed-media Multi-lingual Language Processing," <u>Human Language Technology Conference</u> , San Diego, CA; 2002; 2 pages.  |
| MP   | Andreas Stolcke et al.: "Automatic Linguistic Segmentation Of Conversational Speech," <u>Proceedings of the International Conference on Spoken Language Processing</u> , Vol. 2, Philadelphia 1996; pages 1005-1008.                                |
| MP   | Scott S. Chen et al.: "Speaker, Environment and Channel Change Detection and Clustering via the Bayesian Information Criterion," in <u>DARPA Speech Recognition Workshop</u> , 1998, 6 pages.   |
| MP   | Marti A. Hearst: "Multi-Paragraph Segmentation of Expository Text," in <u>Proceedings of the 2<sup>nd</sup> Annual Meeting of the Association for Computational Linguistics</u> , New Mexico State University, Las Cruces, NM, 1994, pages 1-8.     |

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